

Title (en)

Safety device for electric battery cells and battery provided with such a device

Title (de)

Schutzvorrichtung für Batteriezellen und Batterie mit einer solchen Vorrichtung

Title (fr)

Dispositif de sécurité pour batterie d'accumulateurs électriques et batterie équipée de ce dispositif

Publication

**EP 1111751 B1 20080213 (FR)**

Application

**EP 00403521 A 20001214**

Priority

FR 9916330 A 19991223

Abstract (en)

[origin: EP1111751A1] In a battery comprising several, normally identical, modules (1,1'1,1), each with one or more parallelled cells, connected in series, each module is provided with two safeguarding shunt circuits, connected across its terminals (eg. 2',2). Each circuit is completed through a switching device (4,6), controlled by a release unit (5,7), which monitors the voltage across the module. One of the circuits includes a series resistance (3) and a bistable associated switch, eg. a relay. The switch in the other circuit (6) cannot revert to the open state after being closed, definitively short-circuiting the module. The release units control their respective switches; opt., a single unit performs both functions - opt. also, control is imposed by an external unit programmed to suit battery characteristics. The resistive circuit limits the discharge current to 1 or 10% of module nominal capacity, intervening generally when, with the module charging or fully charged, the voltage exceeds an upper threshold. The other circuit responds to voltages below a lower threshold. Together, they permit a progressive phasing out if failure is detected.

IPC 8 full level

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CPC (source: EP US)

**H02J 7/0016** (2013.01 - EP US); **H02J 7/00308** (2020.01 - EP US); **H02J 7/00309** (2020.01 - EP US)

Cited by

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